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TECHNICAL MEMORANDUM

Utah Coal Regulatory Program

June 15, 2012

TO: Internal File

THRU: April Abate, Team Lead *AAA 8/1/2012*

FROM: Priscilla Burton, Environmental Scientist III/Soils.

RE: Exhibit 24 Phase II Bond Release, Plateau Mining Corporation, Willow Creek Mine, C/007/0038, Task ID #4094

SUMMARY:

The application for Phase II bond release was received at the Price Field Office on May 11, 2012. The acreage of Phase II bond release is illustrated on three maps found in Attachment 7 of the application for 95.4 acres as follows:

- 18.35 acres of land previously used for the overland conveyor corridor, topsoil storage, fuel storage, and the remaining vegetated cutslopes in Willow Creek and Price Canyons.
- 44.09 acres in the Preparation Plant, Gravel and Schoolhouse Canyons
- 32.96 acres in Crandall Canyon

A signed, notarized, reclamation certificate is found in Attachment 5 of the application.

The Permittee has adequately applied best management practices to control erosion and prevent sediments from leaving the site. Phase II bond release is recommended pending site inspections.

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TECHNICAL ANALYSIS:

TOPSOIL AND SUBSOIL

Regulatory Reference: 30 CFR Sec. 817.22; R645-301-240.

Analysis:

Redistribution

The requirements for Phase II bond release are outlined in R645-301-880.320, they include vegetation establishment, sediment control and prime farmland soil productivity. There are no prime farmlands present within the Willow Creek permit area.

As built maps found in Attachment 7 of Ex. 24 outline the areas that are under review for Phase II bond release and those that received Phase III bond release for an industrial post mining use.

Earthwork (including seeding) at the Willow Creek site was completed in the fall of 2004. Reclamation as-built topography is shown on Maps 21 A – AB through 21 G – AB and associated cross-sections on Map 22A-AB of Ex. 23. A total of 193,067 yd³ was moved to reclaim the overland conveyor and a total of 591,286 yd³ was moved to reclaim the main mine highwall (Attach. 3, Ex. 23).

Soil replacement is described in Sec. 5.2.2.2 of Ex. 23. Soils from the adjacent grass and sagebrush covered slope were used for final cover over the long and short tunnels. The Willow Creek Mine topsoil stockpile was utilized in reclamation of the main mine facilities high wall. Analysis of the stockpiled soil and adjacent undisturbed areas are found in Sec. 4.2.2.2 of the MRP.

Findings:

The information provided meets the requirements for Phase II bond release.

STABILIZATION OF SURFACE AREAS

Regulatory Reference: 30 CFR Sec. 817.95; R645-301-244.

Analysis:

Reclamation treatments are indicated on the maps in Attachment 7 of Ex. 24. They were also shown on Map 21 G-AB in Ex. 23. The regraded site was covered with hay (2 tons/ac.) that

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was gouged into the surface before seeding. The hydroseeding operation was followed by a surface application of 1.5 tona/ac hay mulch and 500 lbs/ac tackifier. Locations of the gouging and seeding treatments are shown on Ex. 3.4-17AB.

Sediment yield calculations in Attachment 2 of Ex. 24 estimate less tons of sediment/acre/year post-mining for each reclamation site. This stability is mostly due to surface roughening which effectively shortens the slope from 400 ft. to 3 ft. and the application of surface mulch at 2 Tons/ac.

In all the RUSLE evaluations, the soil erodibility factor, K, was assumed to be equivalent to the surface soils in existence pre-disturbance and equivalent to the subsurface soils (higher value) for the reclaimed soils. The difference in the soil erodibility factor is applicable in the preparation plant area, but topsoil was re-applied in the Gravel Canyon, Willow Creek Surface Facilities and Refuse Pile areas. So that the information presented does not represent the difference in sediment yield precisely. There is no doubt, however, that the application of 2Tons/ac mulch as a cover management factor and surface roughening as a support practice both lessen the yield of sediment from the reclaimed sites.

Findings:

The Permittee has adequately applied best management practices to control erosion and prevent sediments from leaving the site. Phase II bond release is recommended pending site inspections.

RECOMMENDATIONS:

Phase II bond release for 95.4 acres is recommended pending site inspections.